

# Environmental Stewardship Annual Report

published December 2012



**Beverly Eaves Perdue**  
Governor

**Dee Freeman,**  
Secretary  
N.C. Department of Environment  
and Natural Resources





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## Executive Summary

The N.C. Department of Environment and Natural Resources' Environmental Stewardship Initiative is a voluntary program that assists and encourages facilities to use pollution prevention and innovation to meet and go beyond regulatory requirements. The ESI takes a unique approach to supplement regulation by providing a voluntary, systematic and holistic approach to environmental management.

Reductions and cost savings reported by members demonstrate real results and improvements to the environment in North Carolina. The ESI model addresses environmental challenges through partnerships and a voluntary, comprehensive and innovative approach that benefits both the environment and continued economic growth.

This approach combines recognition with assistance, training, mentoring and networking opportunities. A three-tiered membership structure of Partners, Rising Stewards and Stewards allows participation from a wide range of regulated organizations. The Partner level helps organizations address compliance issues and has access to assistance, while higher tiers require organizations to be models of stewardship, mentoring and educating others. In 2011, ESI had 126 member sites as shown in Figure 1.

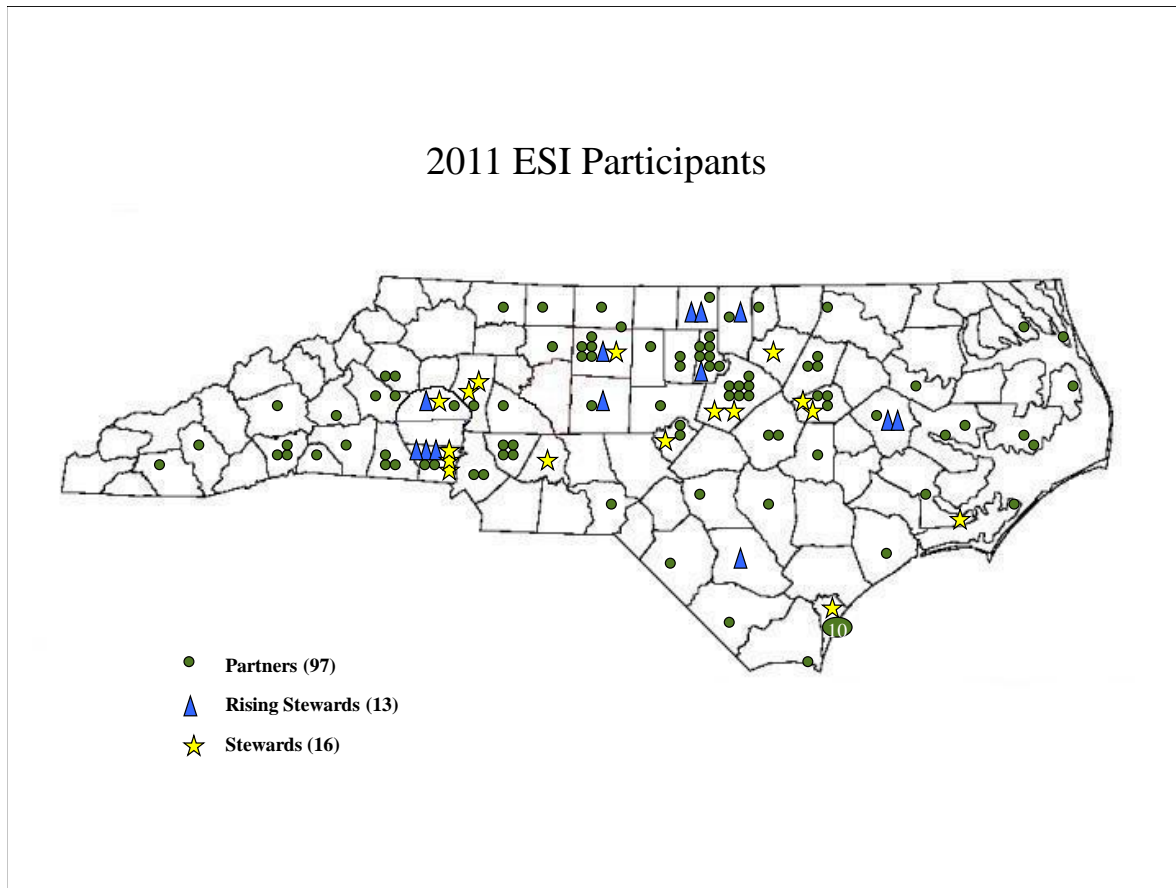


Figure 1: Map of 2011 ESI Participants

The ESI Program is open to any entity in North Carolina that is currently regulated by DENR. (See the Membership section of this report for more information on eligibility and the three levels of the program). ESI members commit to developing environmental management systems and goals that lead to continual improvement and stewardship. In 2011, ESI members set 266 goals covering multi-media regulated and non-regulated impacts including energy and water conservation. Seventy-five members reported progress toward these goals. Partners may apply to the program as multi-site which allows those sites to submit a single annual report. New members must be in the program for at least one year prior to having their results included in the totals. Therefore the total reporting may be less than the total membership numbers. The following environmental impact reductions shown in Table 1 were reported for 2011.

**Table 1: 2011 ESI Members Reported Reductions**

<b>2011 ESI Members Reported Reductions</b>			
	<b>Area</b>	<b>2011 Reported</b>	<b>Unit</b>
<b>Reductions</b>	Air Emissions	4.27	Tons
	Greenhouse Gas Emissions*	18,677	Metric Tons CO2e
	Hazardous waste	14.90	Tons
	Landfilled waste	3,755	Tons
	Energy	1,626,534	mmBtu
	Water Use	347,399,898	Gallons
	Material Consumption	115.37	Tons
	Wastewater Pollutants	7,210	Tons
	Wastewater volume Reduction	5,904,175	Gallons
	Biosolids Volume	none reported	Gallons
<b>Totals</b>	Biomass Recovery**	346,437	Tons
	Total Recycled Volume	1,824,238	Tons
	Total Cost Savings	\$ 13,292,968.13	

\*Indirect not reported in energy reductions

\*\*Category created for compost/mulch related goals



## 2011 Progress Report

“In an ideal world, regulation is replaced by stewardship, an inherent respect for the environment. In this concept of stewardship, everyone takes responsibility for their actions and the use of resources for the benefit of the community.”

This quote from the DENR Principles of Enforcement is the foundation of the ESI vision. By supporting and encouraging superior environmental performance by North Carolina’s regulated community, the ESI seeks to assist regulated organizations to implement environmental management systems. The ESI seeks to grow a community of like-minded members who can share ideas and mentor each other in their continuous improvement journeys.

The current command and control regulatory approach to environmental management is necessary in the real world and has led to significant improvements. However, it is not practical or fiscally possible for North Carolina to regulate all pollution and consumption of natural resources. The ESI seeks to reduce an organization’s impacts beyond measures required by any permit or rule to improve the environment, conserve natural resources and gain long-term economic benefits.

As a requirement of membership, each organization must report annually on its progress toward meeting its goals. This annual report summarizes progress toward the ESI vision. As an environmental program, the best measure of progress is reduced environmental impacts, reported annually by ESI members. Starting in 2005, members also began reporting on cost savings from implementing environmental improvements. Starting in 2008, reporting on greenhouse gas emissions reductions was also included. In 2010 a new category for biomass recovery was created to capture activities related to composting and mulching as a means of diverting waste from landfills for a beneficial use.



Figure 2: Kelley Platt (left) with Thomas Built Buses accepts plaque from DENR Secretary Dee Freeman (right) recognizing their achievement of the Steward level.

## Achievements

### Membership Growth

ESI membership has more than quadrupled since it began in 2002, from 24 member sites in 2002 to 127 member sites in 2011. In 2004, a third level of membership was added (Rising Steward). [See graph of growth in Figure 3] Beginning in 2005, Partner applicants were allowed to submit one application for multiple facilities. Facilities of all sizes participate with the smallest having only one employee and the largest employing more than 69,000. [See breakdown in Figure 4] Sixty-three members are registered to ISO 14001 by third-party auditors and three have been deemed functionally equivalent by ESI staff. In 2011, two facilities chose to drop out of the program due to management changes and time commitments.

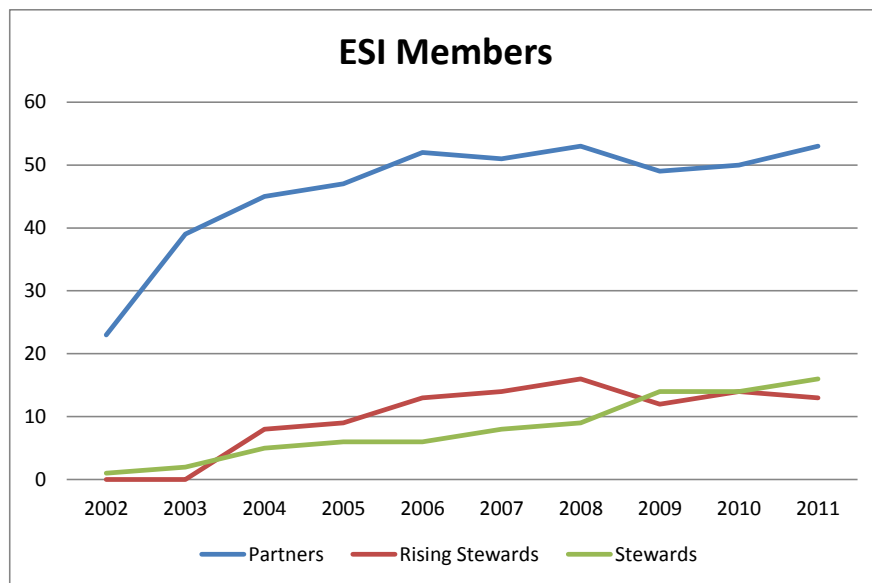


Figure 3: ESI Membership Growth, 2002-2011

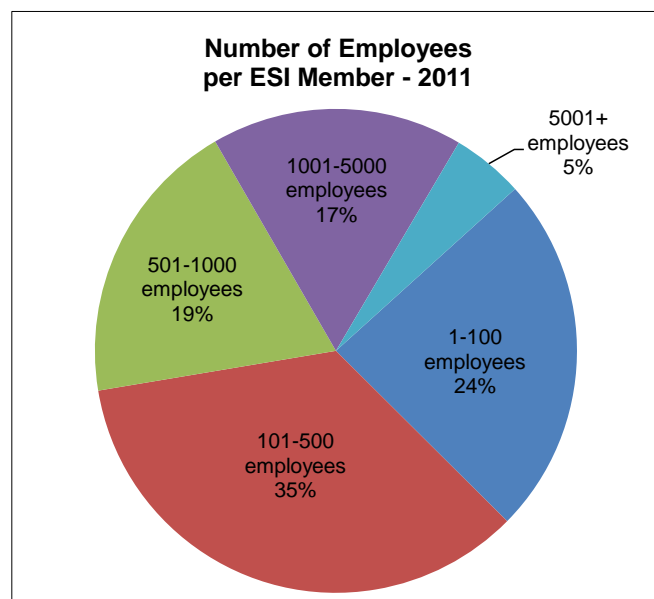


Figure 4: Graph of ESI Members by Number of Employees



## Member Goals

In 2011 ESI still required the development of an environmental management system to drive the development of and progress toward performance-based environmental goals. Members reported on 266 goals that covered multi-media regulated and non-regulated impacts. By far the greatest number of goals set were related to energy use reductions.

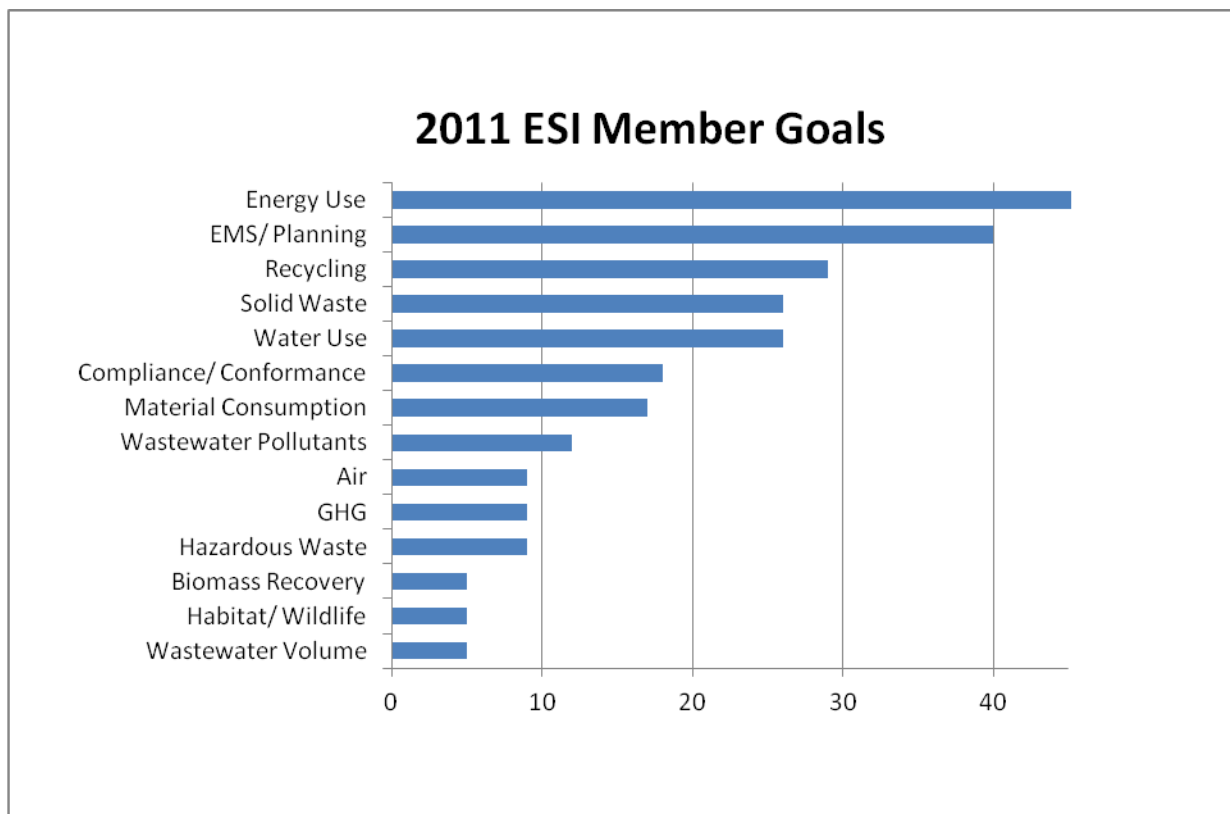


Figure 5: Graph of 2011 ESI Member Goals

## Member Reductions

ESI members are required to report on performance toward environmental goals and reductions in environmental impacts. Seventy-five members reported progress toward these goals, resulting in the following environmental impact reductions. [See Tables 2 through 5] Members' reductions are included in the final compilation after being in the program for one full year. All reduction data are self-reported by member facilities and are not verified by N.C. DENR. While reductions are only counted in the first year of their occurrence, most are permanent reductions.

Year	Total Cost Savings
2004	NA
2005	\$ 12,721,772
2006	\$ 10,393,930
2007	\$ 2,961,039
2008	\$ 4,523,391
2009	\$ 3,070,439
2010	\$ 3,270,504
2011	\$ 13,292,968
<b>Totals</b>	<b>\$ 50,234,043</b>

Table 2: Total cost savings from environmental projects reported 2004-2011

*ESI members saved enough money on environmental projects in 2011 to pay the salary of more than 400 people earning \$30,000 per year.*

*ESI members saved enough energy in 2011 to power more than 21,000 average North Carolina homes for a year.*

Year	Energy Reductions	Greenhouse Gas Emission Reductions *	Air Emission Reductions**
2004	11737	NA	296.84
2005	48451	NA	208.14
2006	123821	NA	231.63
2007	28527501	9370	243.08
2008	9196666	5466	29.46
2009	1549175	64224	155.41
2010	598591	1444	46.11
2011	1626534	18677	4.27
<b>Totals</b>	<b>41,682,476</b>	<b>99,181</b>	<b>1,214.94</b>
<b>Units</b>	<b>mmBtu</b>	<b>Metric Tons CO2e</b>	<b>Tons</b>

\*Indirect not reported in energy reductions

\*\*Not including GHG emission reductions

Table 3: Energy and air emission reductions 2004-2011

Year	Water Use Reductions	Wastewater Volume Reductions	Wastewater Pollutant Reductions
2004	369529216	NA	379
2005	54201286	85566162	527
2006	591356273	106092200	400
2007	83929264	881690	0
2008	183587248	202701	105
2009	1444617822	18304480	138
2010	41895325	20449660	4
2011	347399898	5904175	7210
<b>Totals</b>	<b>3,116,516,333</b>	<b>237,401,068</b>	<b>8,762</b>
<b>Units</b>	<b>Gallons</b>	<b>Gallons</b>	<b>Tons</b>

Table 4: Water and wastewater reductions

*ESI members saved enough water in 2011 to fill almost 16,000 average-sized swimming pools.*



Year	Hazardous Waste Reductions	Landfilled Waste Reductions	Material Consumption Reductions	Total Biosolids Volume	Total Biomass Recovered*	Total Recycled Volume
2004	12.31	997	508.73	NA	NA	10015
2005	119.00	82453	37728.00	7208691	NA	8047
2006	405.16	59441	973.20	2720350	NA	12594
2007	12.52	205169	59.60	18410000	NA	23986
2008	200.32	737	2135.70	Not Reported	2783	4777
2009	10.10	4072	639.46	Not Reported	258635	34233
2010	5.77	10245	1792.20	Not Reported	333375	36667
2011	14.90	3755	115.37	Not Reported	346437	1824238
<b>Totals</b>	<b>780.08</b>	<b>366,869</b>	<b>43,952.26</b>	<b>28,339,041</b>	<b>941,229</b>	<b>1,954,558</b>
<b>Units</b>	<b>Tons</b>	<b>Tons</b>	<b>Tons</b>	<b>Gallons</b>	<b>Tons</b>	<b>Tons</b>

\*Category created for compost/mulch related goals

Table 5: Solid and hazardous waste reductions, material consumption reductions, and beneficial use totals 2004-2011

Reducing energy use and solid waste were once again the most common goals of ESI members in 2011.

- Fifty-six goals related to reducing consumption of energy (natural gas, propane, oil and electricity) were reported with a reduction of over 1.6 million mmBtus (million BTUs).
- Solid waste reduction goals related to biomass recovery such as compost and land application continued to grow. Almost 350,000 tons of material were diverted from landfill to biomass recovery operations.

Facilities also reported reductions in water use, material consumption, hazardous waste, wastewater volume, wastewater pollutants and greenhouse gas emissions in 2011.

- Twenty-six facilities reported water usage reductions of over 347 million gallons through reduced consumption, leak repair, and process water recycling.
- Fourteen facilities reported reductions in material consumption including reductions in the use of raw materials and the reduction of scrap generated.
- Seven facilities reported on hazardous waste reduction goals.
- Six facilities reported wastewater volume reductions of almost 6 million gallons.
- Seven facilities reported wastewater effluent pollutant reductions.
- Nine facilities reported on reduction activities in indirect greenhouse gas emissions that were not included in the energy reductions.

Twenty-seven facilities also reported a recycling volume totaling more than 1.8 million tons.

### ***Energy Reductions***

Energy reductions can be converted to greenhouse gas reductions. Table 6 and Figure 6 show the breakdown of fuel usage and the metric tons of CO<sub>2</sub> equivalent from each type of energy source. They also include the greenhouse gas reductions that were reported separate from energy reductions. The Simplified GHG Calculator tool provided by the EPA Climate Leaders program was used to convert the heating values to metric tons of CO<sub>2</sub> equivalent. This tool can be found under Popular Technical Resources here: <http://www.epa.gov/climateleadership/>

**Table 6: Greenhouse Gas Reductions Reported for 2011**

	mmBtu	metric tons CO <sub>2</sub> e
Electricity	199,625.10	29,849.25
Nat Gas/Propane	524,914.08	27,415.88
Residual Oil	-	-
Distillate Oil	877,174.61	69,111.01
Coal	-	-
E-85	-	-
Gasoline	59.57	4.20
Diesel	21.63	1.70
All Other (multiple types combined)	24,739.00	3,699.14
GHG (not reported in energy reductions)	NA	18,677.40
<b>Total Energy</b>	<b>1,626,533.99</b>	<b>148,758.58</b>

*In 2011 ESI members reduced greenhouse gas emissions equivalent to more than 30,000 passenger vehicles!*

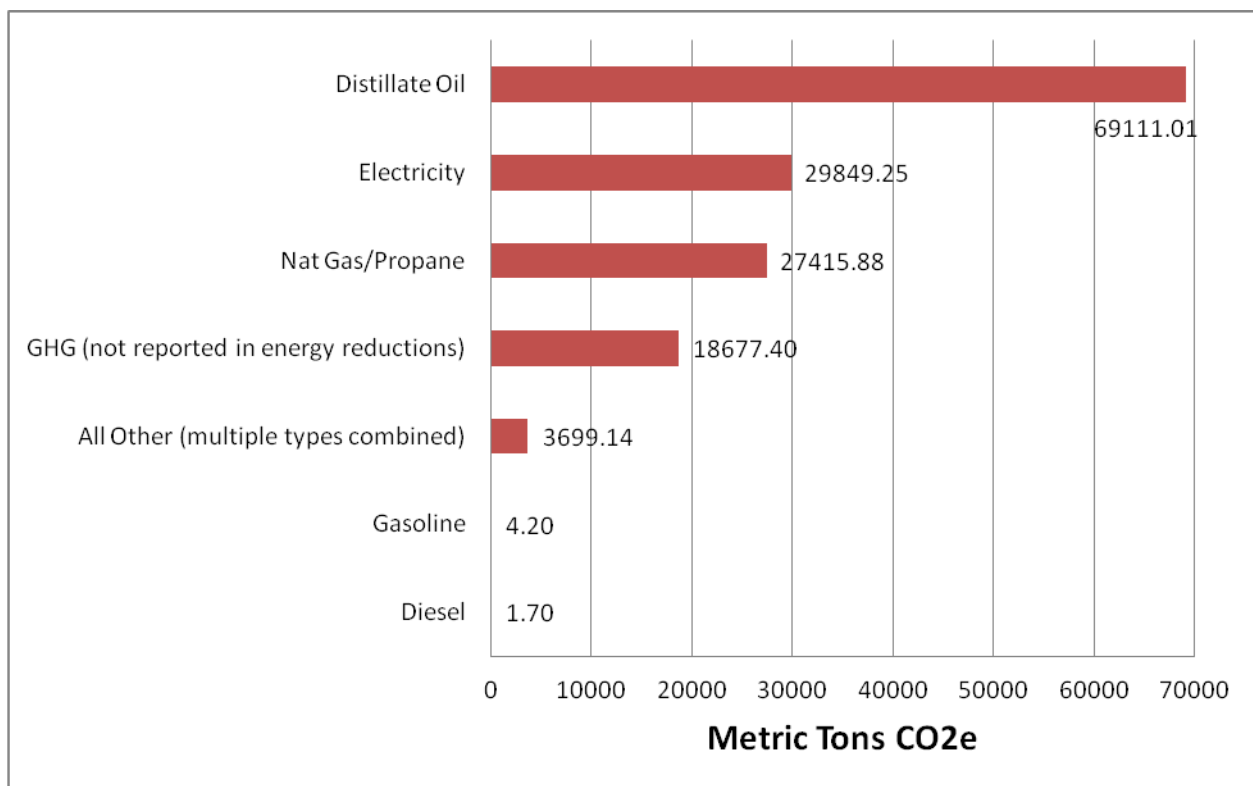


Figure 6: Greenhouse Gas Emission Reductions by Energy Source in Metric Tons CO<sub>2</sub>e



## Cost Savings

ESI members reported cost savings of more than \$13 million in 2011. Savings were reported on 36 facility goals. More than \$11 million was saved through solid waste reductions and recycling. Significant savings were also reported from reduction of material consumption, biomass recovery, and energy reductions. Table 7 and Figure 7 show the breakdown of cost savings by goal type.

**Table 7: Cost Savings Breakdown**

Air	\$	-
GHG (not included in energy)	\$	1,252.00
Hazardous Waste	\$	15,440.00
Water Use	\$	27,440.38
Wastewater	\$	58,704.00
Biomass/Composting	\$	248,549.00
Energy	\$	251,299.87
Material Consumption	\$	701,552.90
Recycling	\$	1,024,105.17
Solid Waste	\$	10,964,624.81
<b>Total</b>	<b>\$</b>	<b>13,292,968.13</b>

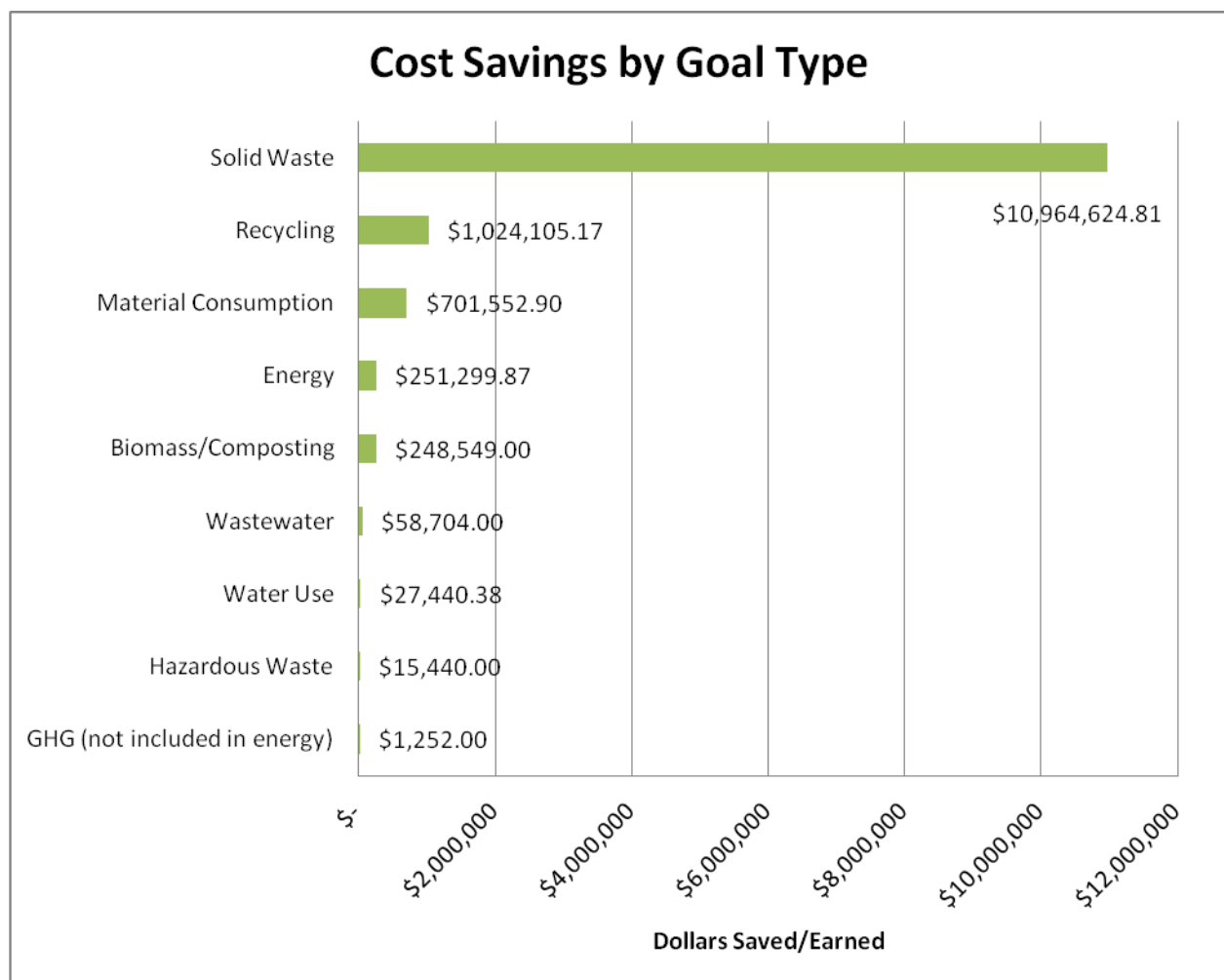


Figure 7: 2011 ESI Member Cost Savings by Goal Type

## Community Involvement

In addition to reporting on goals, the participants also submit information on their environmental involvement in the community. ESI Stewards are required to communicate with their communities about the environment. Although only the Stewards are required to report these activities, other participants may choose to report their activities as well. For 2011, 251 activities were reported by 48 members. The following graph in Figure 8 shows the breakdown of activities.

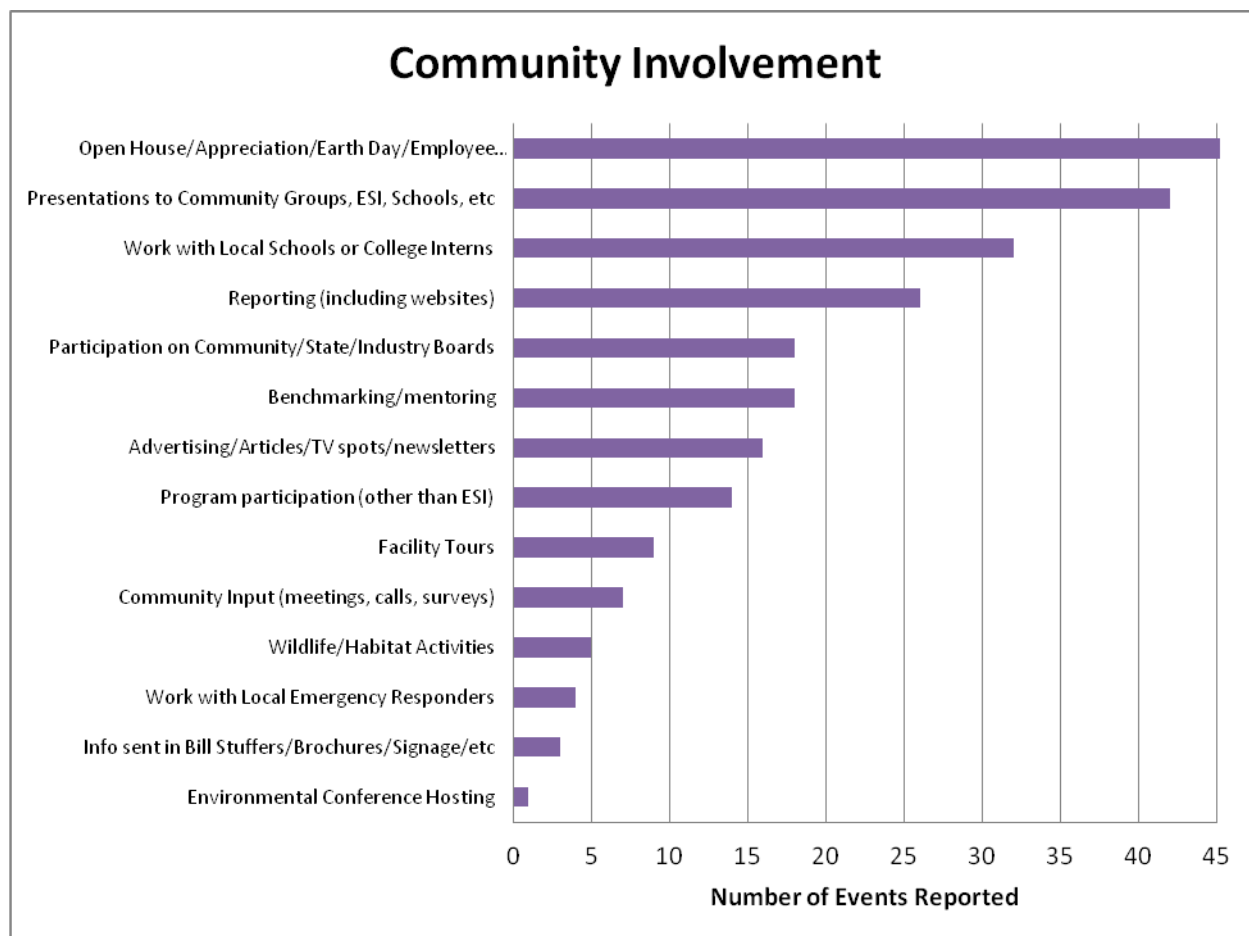


Figure 8: 2011 ESI Member Community Involvement

## New Member Accomplishments

Members who have been in the ESI program for less than one year do not have any results included in the reduction sections of this report. However, many new members have already started reduction activities prior to joining the program. This section provides data on the reductions reported that occurred because of projects put in place prior to ESI membership. A table summarizing these results is in Table 8.

**Table 8: New Member Reductions****New Member Reductions**

<b>Area</b>	<b>2011</b>	<b>Unit</b>
<b>Air Emissions</b>	<b>22.5</b>	<b>Tons</b>
<b>Greenhouse Gas Emissions*</b>	<b>Not reported</b>	<b>Metric Tons CO2e</b>
<b>Hazardous waste</b>	<b>Not reported</b>	<b>Tons</b>
<b>Landfilled waste</b>	<b>78</b>	<b>Tons</b>
<b>Energy</b>	<b>11,891</b>	<b>mmBtu</b>
<b>Water Use</b>	<b>Not reported</b>	<b>Gallons</b>
<b>Material Consumption</b>	<b>Not reported</b>	<b>Tons</b>
<b>Wastewater Pollutants</b>	<b>Not reported</b>	<b>Tons</b>
<b>Wastewater volume Reduction</b>	<b>Not reported</b>	<b>Gallons</b>
<b>Biosolids Volume</b>	<b>Not reported</b>	<b>Gallons</b>
<b>Biomass Recovery</b>	<b>Not reported</b>	<b>Tons</b>
<b>Total Recycled Volume</b>	<b>Not reported</b>	<b>Tons</b>
<b>Total Cost Savings</b>	<b>\$ 10,000.00</b>	

\*Indirect not reported in energy reductions

\*\*Category created for compost/mulch related goals

## **Program Updates**

The ESI operates on a limited budget that comes partially from a federal grant and partially from appropriations from the N.C. General Assembly. From 2002 through 2005, 560 actions were recorded by DENR employees related to EMS development and assistance. These activities included site visits, presentations, meetings and other technical assistance. See Figure 9 below for a breakdown of 2006 through 2011 actions. Outreach includes training classes provided by ESI staff, speaking engagements, booths at other events and other program marketing activities. Site visits are visits made specifically to ESI or potential ESI member sites. Assistance provided includes all other information provided through email and phone calls including the monthly newsletter to our ESI members.

In 2011, due to changes in the online recording database for ESI activities, not all data was captured. The server used previously to host the DEAO website and store this data was retired. A new website has been created, but as part of the DENR portal system the database for activity collection could not be included. In addition, it is impossible to estimate this missing data due to staff changes, particularly the reduction in staff working directly on ESI activities. Staff has focussed on reaching more facilities at once through webinars, newsletters, emails, the new website and presentations. In addition, the Stewards in the program have increased their mentoring of other members. Also with reduced staff, fewer activities were reported by multiple employees.



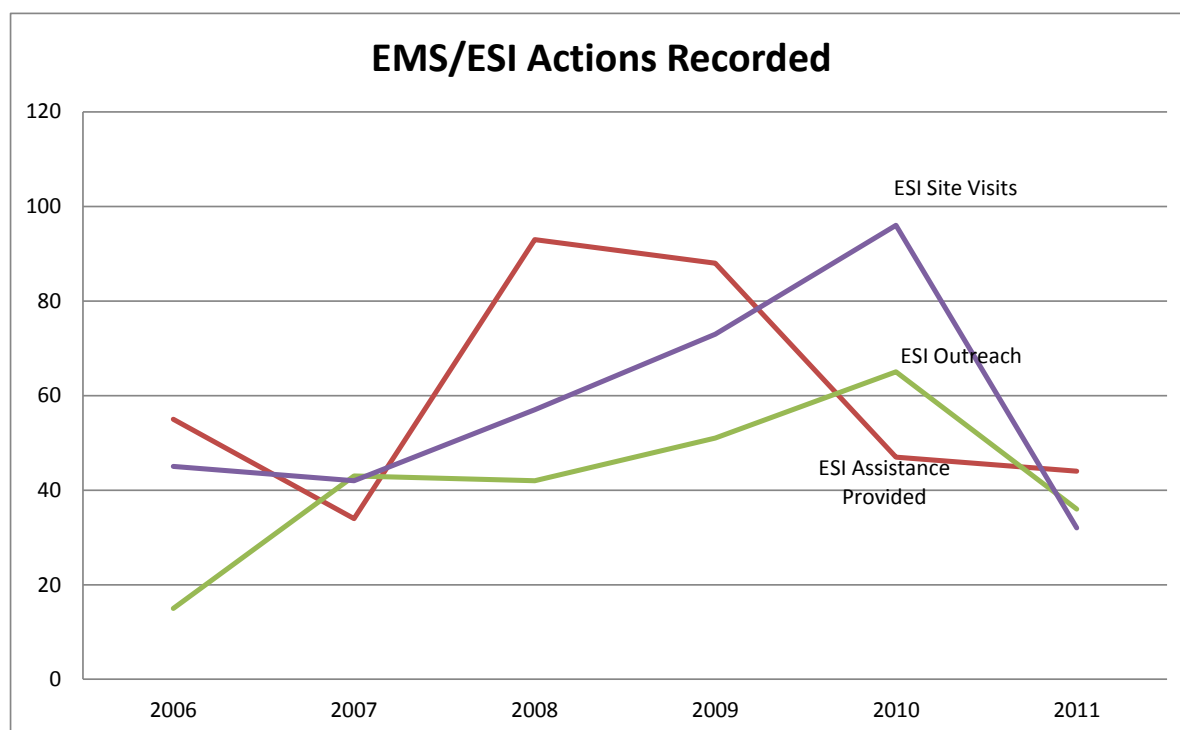


Figure 9: ESI Actions

Partner applications are accepted year-round and reviewed monthly. Steward and Rising Steward applications are accepted only during a two-month period starting in March.

Following receipt of an application, an environmental compliance check is completed to determine if the facility has been under environmental criminal indictment or been convicted within the last two years, as well as identify any compliance issues.

The DENR Internal Workgroup reviews all Partner applications and makes a recommendation to the Secretary regarding acceptance into the program. The internal workgroup reviews Rising Steward and Steward applications to provide regulatory and compliance information to the ESI Advisory Board. The internal workgroup is comprised of the following representatives (Table 9) from regulatory divisions within DENR:

**Table 9: 2011 DENR Internal Workgroup Members**

Bob Guerra	Division of Water Quality
David Lee	Division of Environmental Assistance & Outreach
Bernard McKee	Division of Air Quality/Technical Services
Shawn McKee	Division of Waste Management
Edythe McKinney (Chair)	Division of Environmental Assistance & Outreach
Mel Nevils	Division of Land Resources
David Williams	Division of Soil & Water Conservation

Following compliance review by the Internal Workgroup, the Rising Steward and Steward applications are presented to the ESI Advisory Board.

The DENR Secretary established a volunteer advisory board to oversee program development and implementation. Membership consists of manufacturers, industries, industry trade groups, environmental and citizen nongovernmental organizations, small businesses, representatives of city and county government, DENR representatives and others as deemed appropriate. A DENR employee appointed by the Secretary chairs the board. Whenever possible, Environmental Stewards are given priority for membership for the business, government and at-large seats. Membership on the advisory board rotates every four years and is capped at 15 members. The 2011 Board is listed in Table 10 below.

**Table 10: 2011 Advisory Board Members**

<b>Name</b>	<b>Organization</b>	<b>Representation</b>
Jennifer Adams	Corning Inc.	Steward - Large Business
Bob Bruck	N.C. State University	Academia
Steve Jenkins	Engineered Sintered Components	Steward - Large Business
Edythe McKinney	DENR	NC DENR - Chair
Kimberly Killian	GKN Sanford Precision Forming	Steward – At Large
Brian Kasher	Charlotte-Mecklenburg Schools	Local Government
Dan Miller	FRCE	Steward - Federal Facilities
Ray Price	Smithfield Packing – Wilson	Steward - Agribusiness
Robin Smith	N.C. League of Conservation Voters	Environmental and Citizen NGO
Steve Street	Hickory Cable Facility – Corning Cable Systems	Steward – At Large
Danny Yount	ASMO North America	Steward - Large Business

Rising Steward and Steward applicants receive an on-site verification visit by DENR staff to ensure the EMS is functioning and to gather observations supporting the organization’s application. All information obtained through the application and the on-site verification visit is documented and collated into a report that is presented to the advisory board for review.

The DENR Secretary reviews recommendations made by the advisory board and makes the final decisions. Organizations accepted into the program are usually announced in December.

## **Membership**

Using pollution prevention and other innovative approaches, this voluntary effort offers benefits to members for developing and implementing programs to meet and go beyond regulatory requirements.

Any DENR regulated company or organization that operates one or more facilities in North Carolina and whose activities impact the environment is eligible to participate in ESI. This includes, but is not limited to, manufacturers, businesses, agribusiness, service providers, government agencies, schools and nonprofit organizations. Members can enter the program at any of three tiers: Environmental Partner, Rising Environmental Steward or Environmental Steward. Membership criteria in the ESI vary depending on the tier.

## Criteria

The “**Environmental Partner**” level is designed for adoption by a broad range of organizations that are interested in beginning the process of developing a systematic approach to improving their environmental performance. Partner applications may include multiple sites. By Dec. 31, 2011, the program had 97 Environmental Partner sites.

To be considered at the Partner level the following criteria must be met:

- Demonstrate commitment to compliance.
- Set environmental performance goals that include pollution prevention and are appropriate to the nature, scale and environmental impact of the organization.
- Commit to developing, implementing and maintaining an environmental management system based on ISO 14001 or a functionally equivalent model.
- Not be under any environmental criminal indictment or conviction.
- Agree to report annually on progress toward the organization’s environmental performance goals, reductions in environmental emissions and/or discharges of releases, solid and hazardous waste disposal, use of energy and water and any reportable non-compliance events.

The “**Rising Environmental Steward**” level is designed for those organizations that have a mature environmental management program. Rising Steward applications must be for a single site. By Dec. 31, 2011, the program had 13 Rising Environmental Stewards.

Rising Environmental Steward applicants must meet all Partner criteria and the following:

- Set **measureable** environmental performance goals that are adopted into the framework of the EMS, and must demonstrate annual **improvements** to performance.
- Demonstrate a **mature** EMS based on ISO 14001 or a functionally equivalent model. The EMS for the site must be ISO 14001 third-party certified or be reviewed on-site by DENR staff.
- Demonstrate commitment to meet and **go beyond** compliance.



**Figure 10: Michael Young (left) with Bridgestone Bandag accepts Rising Steward plaque from Dee Freeman (right), DENR Secretary.**



The “**Environmental Steward**” level is for those organizations that display a commitment to exemplary environmental performance beyond what is required by law. Steward applications must be for a single site. By Dec. 31, 2011, the program had 16 Environmental Stewards.

Environmental Steward applicants must meet all Partner and Rising Steward criteria and the following:

- Set **aggressive** environmental performance goals.
- Have a process for **communication with the local community** on program activities and progress toward performance goals.
- Demonstrate how the **EMS is integrated into core business functions**.
- Agree to be a **mentor** to Environmental Partner and Rising Environmental Steward participants.

Organizations at each level are accepted into the program for a period of five years. Rising Stewards and Stewards are reassessed after five years for renewal at their current level. Partner participants are reviewed annually, through their annual report submissions, to assess progress made toward environmental performance and overall program goals.

## **Benefits**

All levels of ESI members are eligible for the following:

- Technical assistance on developing an EMS, pollution prevention approaches, environmental management and treatment technologies, and achieving and maintaining compliance with local, state and federal regulations;
- Specialized training;
- Networking opportunities;
- Recognition of program participation;
- Use of a program logo for the achieved level;
- Coverage by U.S. EPA and DENR self-reporting policies;
- A coach and/or single point of contact within DENR; and
- Other benefits as deemed appropriate by the Secretary based on recommendations from the advisory board.

Partners and Rising Stewards have the additional benefit of access to Stewards as mentors where appropriate. Environmental Stewards have the following additional benefits:

- Formal public recognition from the Secretary of DENR that may include an on-site award ceremony, public announcements and press releases.
- Participation in the Steward Forum chaired by the Secretary.
- Priority membership on the ESI Advisory Board when appropriate positions are available.

During the annual members’ meeting, facilities accepted into the program at the Environmental Partner level receive a certificate of recognition signed by the DENR Secretary. At this same meeting, Rising Environmental Stewards receive a plaque recognizing their achievement. Environmental Stewards accepted into the ESI receive a personal letter signed by the DENR Secretary. The Secretary also presents Stewards with a large plaque during an on-site ceremony. DENR highlights members’ participation in press releases, the ESI website, newsletters, and social media posts.

## **Conclusions**

The results from the ESI annual report show that an approach that goes beyond the regulatory requirements can garner results that have positive impacts for not only regulated pollutants, but also for non-regulated environmental and economic factors. This program is unique in its ability to collect environmental data across media, including monetary savings associated with the improvements made. These savings help to keep our businesses and municipalities strong even in weak economic times. The Environmental Stewardship Initiative encourages North Carolina industries and municipalities to share their environmental success stories with each other across sectors in order to provide a better environment for everyone in the state.

## 2011 ESI Members

### Stewards:



- **ASMO North Carolina Inc. - Statesville**
- **Bridgestone Americas Tire Operations LLC - Wilson**
- **City of Gastonia Crowders Creek Water Resource Recovery Facility**
- **City of Gastonia Long Creek Water Resource Recovery Facility**
- **City of Gastonia Water Treatment Plant**
- **Corning Inc. – Wilmington**
- **EMC Corporation – Apex**
- **Engineered Sintered Components - Troutman**
- **Fleet Readiness Center East - Cherry Point**
- **GKN Driveline- Sanford Precision Forming Facility – Sanford**
- **Hickory Cable Facility, Corning Cable Systems**
- **John Deere Turf Care**
- **Michelin Aircraft Tire Co. - Norwood**
- **Novozymes North America Inc. - Franklinton**
- **Smithfield Packing Co. – Wilson**
- **Thomas Built Buses, Inc.**

### Rising Stewards:



- **ASMO North America Inc. – Greenville**
- **AW North Carolina Inc.**
- **Bridgestone-Bandag, LLC**
- **City of Gastonia Wastewater Treatment Division Biosolids Program**
- **Eaton Corporation - Roxboro Plant**
- **Firestone Fibers & Textiles Company, Gastonia**
- **Firestone Fibers & Textiles Company, Kings Mountain**
- **GKN Driveline - Roxboro Facility**
- **GKN Sinter Metals**
- **NACCO Materials Handling Group**
- **N.C. Zoological Park - Horticulture Section**
- **RF MicroDevices**
- **Smithfield Packing Company Inc. Tar Heel Division**

### Partners:

- **18th Airborne Corps and Fort Bragg**
- **Alliance One International Inc. (5)\***
- **Baker Furniture (2)\***
- **Baxter Healthcare**
- **B/E Aerospace, West Point**
- **Borg Warner Thermal Systems**
- **Burt's Bees Inc.**



# Partners:



- Cape Fear Public Utility Authority (10)\*
- Cascades Tissue Group – North Carolina Inc.
- Caterpillar Precision Seals
- Charlotte-Mecklenburg School System
- City of Gastonia Public Works Division
- City of Hendersonville Water Treatment Plant
- City of Shelby First Broad River Wastewater Treatment Plant
- City of Shelby Water Treatment Plant
- CommScope Inc. - Claremont Operations
- Crown Equipment
- Daimler Trucks North America LLC – Cleveland
- Daimler Trucks North America LLC - Mt Holly
- Domtar Paper Company, LLC
- Duke University
- Eaton – Raleigh area (3)\*
- Freudenburg Nonwovens
- General Dynamics AIS
- General Electric Company – Industrial Solutions
- Grifols Therapeutics (fka Talecris Biotherapeutics)
- High Point Furniture (2)\*
- International Paper - Riegelwood Mill
- Kao Specialties Americas
- Kapstone Kraft Paper
- Marine Corps Base, Camp Lejeune
- Mecklenburg County Foxhole Landfill
- Midwest-CBK
- Momentive (fka Hexion Specialty Chemicals)
- N.C. DOT Ferry Division (9)\*
- N.C. Zoological Park
- NIEHS
- Performance Fibers, Inc. - Moncure
- Pfizer
- PSNC Energy Carolinas Inc. (21)\*
- Siemens Medical Solutions – CSG Service Headquarters
- Smithfield Clinton Plant
- Smithfield Foods Clayton
- The Summit Environmental Education Center at Haw River State Park
- Tredegar Film Products
- Universal Leaf North America US Inc. (3)\*
- USCG-Support Center Elizabeth City
- WSACC- Interceptor System

# Partners:

- **WSACC- Mt. Pleasant Water Treatment Plant**
- **WSACC- Rocky River Regional Wastewater Treatment Plant**

